G. R. S. IX-5]

Previous references.
Edn. 2-5-46 19.

V

1915-16.
(Edn.)

File No. 2-15

Serial Nos. 126 + 145

Later references.
Edn 30-16-29

GENERAL AND REVENUE SECRETARIAT.

Serial Nos. 126 + 145.

Part B for June, 1946.

SUBJECT.

Extension of the foreign scholarship of Mr. R. Seethanama Rao.

M. 145

To the Dy. Edn.
" " Comptroller.
No. 267-8. S. S. I. 1946.

Extends the foreign scholarship by another year.

W D 58—GPB—50,000—24-7-16

B. Nilakantaiya
19.10.1946.

5023

2/7

G. R. S. 11] 191 .

GENERAL AND REVENUE SECRETARIAT.

(Edn.)

NOTES.

File No. 2-15.

FILE HEADING.

Foreign Scholarships.

From

The D. P. I. of Mysore

No. 22529/957 Dated 16th May 16 Received 17.5.16.

Diary No. 5023	Enclos.	Spare Copies.	Serial No. 126

BRIEF ABSTRACT OF LETTER.

Forwards copies of letters from Mr. Sitharama Rao, Prof. McKee & the Director of Ind & Commerce and states that to go how the course chalked out by Prof. McKee, the scholarship of Mr. Sitha Rama Rao must be extended by one year.

NOTES AND ORDERS.

1 Mr. Instructions were given in this Office Letter No. 735/Edn 2-15-19 dt 14.8.15 in the matter of Studying paper manufacture. In accordance with these instructions a Course was Chalked out by Prof. McKee. to Mr. Sitaram Rama Rao

NOTES—First Sheet.

2663 5023

G. R. S. 12]

General and Revenue Secretariat.

File No. 2 of 191 5

Serial No.

under whom Mr. Sitaram Rao is working. The D.P.I. The Director of Industries & Commerce who was consulted in this matter is of opinion that the Student may accept the course chalked out by Mr. McKee The D.P.I says that to follow the course the Scholarships the Scholarships granted for a years in G.O. No. 4787-93/Edn 2-14-15. dy 11. May. 1915. to Mr. S. Rao may be intended by two years.

Submitted with a draft.

15.6.16. Branch ii may be consulted.

The amount has to be met perhaps from the same source from which the scholarship amount was met last year.

G.O. No. 2663 dy 15

15/6/16 Br II

16/6

Subd. 16/6

No financial diffy. so long as the Sanctioned scale of scholarships is not exceeded.

Br VI. 19.6.16

Put with draft already prepared.

Br II

Seen approved

21/6

1st Number 8 Approved 24.6 for 26/6

Dewan

24/6

NOTE—Contn. sheet.

173 23.6.16

6776 26.6.16

GBB—65,000—17-9-12.

G. R. S. 121

General and Revenue Secretariat.

5023

Edn File No. 2 of 1915

Serial No.	
	1 Draft approved by the Dewan.
145	To the Dy of Edn & Compsn. 267-8 B.J.U. Expenses for sch. granted to Mr. Sitarama Rao by another year.

NOTE—Contn. sheet.

GPB—65,000—17-4-12.

GPB—3,210—1-6-15

Edn. 15]

OFFICE OF INSPECTOR-GENERAL OF EDUCATION IN MYSORE.

No. 22529 / 951 *Bangalore,* 9th May *1916*

16 DIARY No. 5223.

19-19
SECTION 8
FILE No. 2-15
No. 126

From

Rao Bahadur
M. SHAMA RAO, Esq., M.A.,
Inspector-General of Education in Mysore.

To

.....P. G. D'SOUZA, Esq., B A., B.L.,
Secretary to the Government of H. H. the Maharaja of Mysore,
.....Education and Agriculture *Department.*

SIR,

With reference to your letter No.739/Edn.2-15-19 dated 14th August 1915 issuing certain instructions regarding the course to be followed by Mr. R. Sitharama Rao, Foreign Scholar studying Paper Manufacture in America, I have the honour to submit herewith for the information of Government, copies of the marginally noted correspondence regarding the course, and to state that in my opinion the course chalked out by Prof. McKee, under whom Mr. Sitharama Rao is working, may be followed. In that case the scholarship sanctioned to Mr. Sitharama Rao for one year in Government Order No. 4787-93/Edn.2-14-157 dated 11th May 1915 may be kindly extended by another year.

Letter dated 26th February 1916 from Mr. Sitharama Rao
Letter dated 9th February 1916 from Prof. McKee
Letter No.4260 dated 20th April 1916 from the Director of Industries & Commerce
Letter dated 18th March 1916 from Mr. Sitharama Rao.

I have the honour to be,
Sir,
Your most obedient servant,

M. Shama Rao

Inspector General.

TNR.

2 6

Letter dated 26th February 1916 from Mr. R. Setharama Rao, Mysore Government Scholar in America, to the Inspector General of Education in Mysore.

From the instructions in the letter No.739/Edn.2-15-19 dated 14th August 1915 from the Secretary to Government, Departments of Education and Agriculture, which has been communicated to me, I understand that I have to study both mechanical and chemical sides of Pulp and Paper Industry together with the management of a paper mill. Roughly the mechanical side of the industry may be divided into (1) manufacture of paper Mill Machinery, and (2) Erection of paper Mill Machinery. Similarly the chemical may be divided into (1) Pulp making and (2) Paper making including the economic problems in the utilization of pulp, coloring, finishing, etc. Of these Pulp making is of primary importance since the whole industry of Paper making depends upon it. At the same time a careful study of it will enable us to find out the available materials for pulp-making in our forests. Second in importance is the economic problems in the utilization of a pulp i.e. to find out the most suitable kind of paper that can be made from a given kind of pulp.. The third is the erection of paper mills. Fourthly and lastly comes the manufacture of paper-mill machinery. From the above considerations the programme of studies is evident, viz.,

1. Manufacture of pulp in various improved modern methods of Sulphite, Soda, and Sulphate Processes including mechanical.

2. Economical ways of manufacturing paper from available materials.

3. Erection of paper mills.

4. Manufacture of paper-mill machinery together with practical experience of handling paper at its various stages in a factory.

5. Odd times and opportunities will be utilized for the study of Business Management.

I placed before Dr. McKee the Government Instructions, the above programme, and the idea of establishing a paper factory ~~for~~ for utilizing bamboos for pulp and paper by our Government and requested him to chalk out a course of study for me. After careful consideration he outlined a course of study including a thesis work on points which were insufficiently considered by those who experimented on bamboos. The outline of work suggested by him is herein enclosed. The thesis work suggested is on the following lines:-

1. Making of pulp from bamboos under improved methods of sulphite process which has, apparently, not been applied by any one. If this can be used it is by far the cheapest method of making pulp.

2. To find out what kinds of paper could be made most economically from bamboos. Hitherto the efforts have been exclusively along book paper lines.

If the Government be kind enough to send bamboos, the experiments will be done under the expert ~~ag~~ guidance of Dr. R.H. Mckee, Head of the Pulp and Paper school at the University of Maine and the Official Chemist to the American Pulp and Paper Association which produces 80% of the tonnage of paper manufactured in the United States. Such experiments will be of great value to the Government. Cost accounting will also be considered in the above thesis.

I herein enclose an application to the Conservator of

Forests

Forests in Mysore, requesting him to supply me with bamboos. I request you to kindly forward it ~~xxxxxx~~ with your ~~xx~~ recommendations.

I returned from New York on Monday, the 21st instant, I am getting on well with my studies. The winter is very cold for me. A few days ago the temperature went down to about 24 degrees below zero.

"C o p y"

Yours

Inspector General.

TNR.

Letter dated 9th February 1916, from Prof.Ralph H.McKee, Professor, Department of Chemistry, University of Maine, Orono, Main, to the Inspector General of Education in Mysore.

Mr. R. Sitarama Rao will have taken in the Paper and Pulp School of the University of Maine the following courses by June 1916:-

L 1. Ch 17 Gas and Fuel Analysis
2. Ch 55 Cellulose Chemistry
3-5. Ch 71, 72, 74, Physical Chemistry
6. Ch 81 Lectures on Paper Manufacture
7. Ch 84 " Pulp "
8. Ch 86 Pulp Bleaching
9. Ch 88 Paper coloring
10. Ch 82 Paper making Practice
11. Bl 17 Wood Identification
12. Fy 1 Forest Economics
13. Me 14 Power Generation and Application
14. Ee 30 Direct Current Machinery
15. Es 76 Business Management.

In order to prepare himself adequately for the business of manufacturing paper pulp and paper he should next year take the following additional courses:-

1. Ch 87 Paper Testing
2. Ch 89 Paper Problems Practice
3. Ch 28 Lubrication of Machinery
4. Ch 62 Water Analysis
5. Ee 31 Alternate Current Machinery
6. Ee 33 Electrical Engineering Practice
7. Me 99 Factory Organisation
8. Fy 9 Forest Products other than Lumber.

These courses will take slightly less than half his time for a year. In addition he should take up a thesis problem. Apparently the problem that has the greatest importance for paper making in India is the use of bamboo as a paper making material. I have outlined such a study for him and he should plan to spend at least the remainder of the next university year on it. Under experienced direction he should be able in this time to largely increase the present known knowledge of paper making from bamboo and reach a real commercial solution of the problem.

I recommend the above programme for your approval.

"Copy"

Inspector General.

TNR.

7/11

Letter No.4260 dated 20th April 1916 from the Director of Industries and Commerce in Mysore, to the Inspector General of Education in Mysore.

In reply to your No.20677/3474 of the 19th April 1916, I have the honour to state that I consider Mr. R. Sitarama Rao is trying to attempt too much in the time that is available to him and I should recommend that he be recommended to confine himself to the chemical problems connected with pulp making and paper making. Incidently, doubtless, he will require a certain amount of information about paper making machinery; but it would be absurd for him to attempt to do any work in connection with the manufacture of machinery or the erection of the same. These things cannot be taught in a University course.

In regard to the details set forth in the letter of the 9th February 1916 from Mr. Ralph H. Mckee, the Professor in the Department of Chemistry under whom the student is working, you must, I think, accept his programme; but I am afraid that at the end of it, the student would only have got a smattering of information and will be far from qualified to undertake the pioneering of the industry in this State.

"Copy"

Inspector General.

TNR.

12

Letter dated 18th March 1916 from Mr. R. Sitarama Rao, Foreign scholar in America, to the Inspector General of Education.

In continuation with my programme of studies forwarded to you last month, I request permission to bring to your notice the following points:-

The course of study chalked out by Dr. McKee is mostly of a chemical nature, The amount of information gained on the mechanical side of the paper industry is very little. There is not any regular course here which goes into the details of paper mill machinery or its erection. The New York State College of Forestry that has announced three distinct lines of study, viz., mechanical, chemical and forestry, has not supplied me the details of the course along the mechanical line. Probably such experience can only be gained in a factory or at places where new machinery are installed.

One year from June 1916, the time required to complete the course of study chalked out by Dr. McKee, is just sufficient to finish the course at the Pulp and Paper School here and fairly covers 1 and 2 of the programme of studies forwarded to you. To study the mechanical side of the industry coupled with factory experience and its management is not possible within that period. Therefore the scholarship is to be extended for more than a year. Is it not advisable to fix the period of apprenticeship and the places for the same in harmony with the results of the thesis work?

(For your reference I reproduce the suggested thesis by Dr. McKee).

1. Making of pulp from bamboos under improved methods of sulphite process which has, apparently, not been applied by any one. If this can be used it is by far the cheapest method of making pulp.

2. To find out what kinds of paper could be made most economically from bamboos. Hitherto the efforts have been exclusively along book paper lines.

The following lines gives you an idea of the equipment of the Pulp and Paper School here:-

The Pulp and Paper School is accommodated in the Buildings of the Dept. of Chemistry, viz., Aubert Hall. Apart from rooms used for lecturing purposes four are especially set aside for the paper mill machinery. In one of them the experimental plant is located. It consists of.-

1. A small rotary cylendrical boiler about 36 inches long and 10 inches in diameter connected with the exhaust steam of a boiler
2. A small beater of about 8 lbs. of rags in capacity
3. A screen chest worked by machinery
4. A centrifugal pump
5. The necessary appliances for making solutions and hand made paper. 8" x 6"
6. A five horse power motor for running them all.

In an other room the paper testing appliances are kept. In the remaining two rooms are thrown in confusion appliances for making sulphite pulp, a few digesters of about 4 lbs. capacity for for laboratory experiments, a small beater 24" long and 12" wide, and a few other small instruments used in the paper industry. I hear that they are going to set everything in order in the near future.

In my next I will let you know briefly about my studies, surroundings, and experiances.

The Thesis work will be commenced soon after the receipt of bamboos.

"Copy

Yours

TNR

INSPECTOR GENERAL

G.R.S. 28]

Diary No. of letter replied to 5023

GENERAL AND REVENUE SECRETARIAT.
( )

, the 191 .

Date of issue 8-7-16.

Signed by Sri. K. Subba Rao.

E Edn. File No. 2-15
Serial No. 145

Proceedings of the Government of His Highness the Maharaja of Mysore

READ—

G. O. No. 4787-93/Edn. 2-14-15 of 12.8.15 sanctioning a foreign scholarship during 1914-15 to Mr. R. Sitaram Rao B.E.

ORDER THEREON.—No.

for a year for the study of paper manufacture.

2. Lr. No. 739/Edn. 2-15-19 of 14-8-15 to the D-G-E issuing certain instructions in regard

over.

SUBJECT.

GPB—50,000—1-12-12

to the course to be followed by
Mr. R. Sitaramam Rao, studying
paper manufacture in America.
3. Letter. No. 22529/957 dy 16 May 16
from the Dy Edn in Mysore
Submitting, ~~Copy of letters~~,
Copy of letter. Dy. 9th Feb. 1916.
from Prof. McKee Containing
the course to be followed by
Mr. Sitaramam Rao & recom-
-mending that, as the course
Chalked out by Prof. McKee,
under Whom the foreign Scholar
is working, may in his opinion
be followed, his Scholarship
may be extended by another
year.

Vm. 16

Order. No. 267-8.

The Scholarship granted
to Mr. Sitaramam Rao. for a year
for the study of paper manufacture
is extended by another
year.

4.7.16
RC

21/6

for
Secy-Govt
15.6.16

G. R. S. 27]

GENERAL AND REVENUE SECRETARIAT.

(*Continuation sheet draft form.*)

GPB—12,000—15-2-13.